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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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07/786,453 11/01/91

LEVINSON

F A-54591/GSW  
EXAMINER

AMSBURY, W

E3M1/0902

ART UNIT PAPER NUMBER

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2307

DATE MAILED:

09/02/93

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 11-01-91 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☒ Notice of References Cited by Examiner, PTO-892.
- ☐ Notice re Patent Drawing, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☒ Notice of Informal Patent Application, Form PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐

Part II SUMMARY OF ACTION

- ☒ Claims 1-46 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
- ☐ Claims \_\_\_\_\_ have been cancelled.
- ☒ Claims 1, 5-12, 24, 28-35 are allowed.
- ☒ Claims 2-4, 13-23, 25-27, 36-46 are rejected.
- ☐ Claims \_\_\_\_\_ are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
- ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- ☐ Formal drawings are required in response to this Office action.
- ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
- ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
- ☐ The proposed drawing correction, filed on \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation).
- ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
- ☒ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
- ☐ Other

EXAMINER'S ACTION

1. This application does not contain an Abstract of the Disclosure as required by 37 C.F.R. § 1.72(b). An Abstract on a separate sheet is required.

2. The disclosure is objected to because of the following informalities:

In claim 2 page 33 line 2, "schedule" should be -- scheduled --. This occurs in claims 14 and 37 also.

In claim 36, it appears that the "and" at line 15 and the period at line 18 are misplaced.

Appropriate correction is required.

3. Claims 2-4, 14-16, 25-27, and 37-39 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2, 14, 25, and 37 the intent of the phrase "how long it will take" is not clear, as the context of the claims would allow interpretations: (1) from now to the start of an information segment, (2) from now to the end of an information segment, and (3) the duration defined by (1) and (2). It is not clear which of these are supported by the specification.

Claims 3-4 (claims 15-16; claims 26-27; claims 38-39) are rejected as incorporating this lack of clarity from claim 2 (claim 14; claim 25; claim 37).

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 13 and 36 are rejected under 35 U.S.C. § 103 as being unpatentable over Cichelli et al, USP 4,429,385, Method and Apparatus for Digital Serial Scanning With Hierarchical and Relational Access and Young, USP 4,706,121, TV Schedule System and Process.

Cichelli et al (Cichelli) discloses the broadcast of structured data for selective interception by receivers, substantially as claimed. Cichelli corresponds to the elements of the claims as follows:

In claim 36:

"an information database" (col 4 line 66 to col 5 line 4)

"hierarchically arranged set of indices for ... database"  
(claim 1A-1B, col 21, where the database is stated to be one of frames with data and header embedded in a frame; the hierarchical structure is built into the set of frames, as noted at col 10 lines 24-31, and in the abstract; the hierarchical set of indices is presented to the user as a menu structure (col 9 lines 12-16), which allows the choice of a frame number (col 9 lines 36-46), which is then extracted from the stream (col 9 lines 47-52)

"scheduling transmission" (col 4 line 68 to col 5 line 1; col 10 lines 30-31, where the transmission of the entire database is scheduled "cyclically", from which individual portions are scheduled at different times) It would have been obvious to one of ordinary skill in the art at the time of the invention to transmit a selected portion of available information as "the entire database" because information becomes dated and new times are added as being of current interest. In the Real Estate example of Cichelli, for instance, properties are sold, and others newly listed. It is clear that the transmitted database is a selection, and the phrase "of current interest" is inherent in "the entire database". The use of subscriber selection to affect the transmission is also known in the art, as evidenced by Young (col 4 lines 36-52).

"transmitting a stream of data packets" (claim 1C, col 21 lines 6-68, where the stream is the "serial data base")

"subscriber stations" (col 8 lines 47-49)

"filter data ... which comprises a subset ..."; " ... downloading ... packets which match ..." (col 8 lines 49-54, grabbing; claim 1F, where receiving a serial stream of packets, extracting their data, and forming a display requires storage into memory )

Cichelli does not address the trapping of a requested set plus an additional set of packets, but this is known in the art as evidenced by Young (col 3 lines 34-38), where an example is noted of selecting a program in a series, which causes the rest of the series to be trapped automatically. Furthermore, the hierarchy of Cichelli is defined so that "relational information" can be extracted (col 10 lines 29-31) by using menus to walk the hierarchy (col 14 lines 44-49). Clearly, attribute sets define the tiers. It would have been obvious to one of ordinary skill in the art to use the hierarchy in the placement of associated information of interest because the hierarchy organizes access paths.

The analysis of claim 13 is similar.

5. Claims 17-23 and 40-46 are rejected under 35 U.S.C. § 103 as being unpatentable over Cichelli, USP 4,429,385 and Young, USP 4,706,121, and Hoarty et al, USP 5,220,420, Interactive Home Information System for Distributing Compressed Television Programming.

The limitations of claims 40-46 not covered in the analysis of claim 36 above are elements of application in a typical TV cable system, as noted in Young, (col 1 lines 10-24 and 44-47). Such a system is described in Hoarty et al (Hoarty). It would have been obvious to one of ordinary skill in the art at the time of the invention to deploy the principle features of Cichelli and Young in the system of Hoarty because the data packets are ultimately intended for transmission to subscribers, and the system of Hoarty provides a convenient delivery package.

Claim 40 limits claim 36 in the transmission of the packet stream to cable television systems which then retransmit it to subscribers. Retransmission is not addressed by Cichelli and Young, but is described in Hoarty et al (Hoarty), FIG 1 and col 6 lines 5-25. In this system the regional center retransmits (portions of) the signal to subscribers.

In claim 41 the further limitation of claim 40 is: "(CATV) inserts into the stream ... additional ... data". Part of the "customization" in Hoarty, col 6 lines 13-15, involves the inclusion of additional information (col 7 line 65 to col 8 line 7).

The further limitations of claim 36 in claim 42 not addressed in Cichelli and Young, but addressed in Hoarty are:

"reserving ... bandwidth" (Hoarty col 3 lines 38-39);

"receiving requests" and "scheduling transmission"

(Hoarty claim 1, col 21 lines 47-57).

In claim 43, the further limitations of claim 36 involve use of a "local area network". A LAN is built into the system of Hoarty, where the "Headend" computer (see FIG 1) acts as a net server. Interaction of the user with the headend computer is described at col 6 lines 43-56. They are shared by multiple users (col 3 lines 9-10; col 6 lines 19-21), who interact with the information (col 3 lines 11-18; col 6 lines 37-42).

In claim 44, the limitation of claim 36 is the use of a selected subset of "multiple transmission channels". In Hoarty, this limitation appears in the way in which nodes interact with users (col 3 lines 38-50). Selective channeling was well known in the art, as evidenced by its use at the system level, FIG 24. Finally, it is noted that the selective receipt of channels was the basis of the tuning circuits of a TV set at the time of the invention, and is presumed to be inherent in the system of Hoarty.

In claim 45 the further limitation of claim 44 is the transmission of both "video and non-video" materials. This is a feature of Hoarty, col 2 lines 47-52, which is addressed to multimedia. In particular, the home interface uses a low band frequency to communicate "primarily non-video" information back to the local node (col 3 lines 43-45).

In claim 46 the further limitations of claim 36 deal with the customization of the subscriber selection prior to forwarding to another destination. This appears in Hoarty in a general way in Hoarty at col 6 lines 13-18. The explicit use of a "filter list" is not addressed, but it would have been obvious to one of ordinary skill in the art at the time of the invention to use such a list because some data structure is needed to define which items are to be included and which excluded. The simplest such structure is a list of the inclusions.

The analysis of claims 17-23 is similar.

6. Claims 14-16 and 37-39 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

7. Claims 1, 5-12 and 24, 28-35 are allowable over the prior art of record.

8. Claims 2-4 and 25-27 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Serial No. 07/786,453.1ST  
Art Unit 2307

-9-

Neches, USP 4,956,772, Methods of Selecting Simultaneously Transmitted Messages in a Multiprocessor System.

Gordon et al, USP 4,994,926, Facsimile Telecommunications System and Method.

Jurkevich et al, USP 5,164,938, Bandwidth Seizing in Integrated Services Networks.

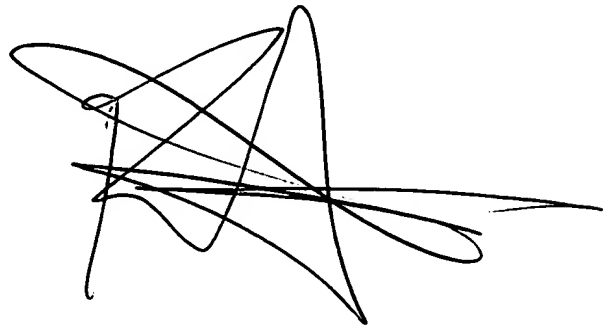
Flood et al, USP 5,193,189, Programmable Controller With Multiple Priority Level Task Processing.

Lawlor et al, USP 5,220,501, Method and System for Remote Delivery of Retail Banking Services.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Wayne Amsbury** whose telephone number is (703) 305-3828.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

WPA  
30 August 93

A large, stylized handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

PAUL V. KULIK  
PRIMARY EXAMINER  
GROUP 2300



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER

FILING DATE

FIRST NAMED APPLICANT

ATTY DOCKET NO./TITLE

DATE MAILED:

**NOTICE OF INFORMAL APPLICATION**

(Attachment to Office Action)

This application does not conform with the rules governing applications for the reason(s) checked below. The period within which to correct these requirements and avoid abandonment is set in the accompanying Office action.

A. A new oath or declaration, identifying this application by the application number and filing date is required. The oath or declaration does not comply with 37 CFR 1.63 in that it:

1. ☐ does not identify the city and state or foreign country of residence of each inventor.
2. ☐ does not identify the citizenship of each inventor.
3. ☐ does not state whether the inventor is a sole or joint inventor.
4. ☐ does not state that the person making the oath or declaration:
  - a. ☐ has reviewed and understands the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration.
  - b. ☐ believes the named inventor or inventors to be the original and first inventor or inventors of the subject matter which is claimed and for which a patent is sought.
  - c. ☐ acknowledges the duty to disclose information which is material to the examination of the application in accordance with 37 CFR 1.56(a).
5. ☐ does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application serial number, country, day, month, and year of its filing.
6. ☐ does not state that the person making the oath or declaration acknowledges the duty to disclose material information as defined in 37 CFR 1.56(a) which occurred between the filing date of the prior application and filing date of the continuation-in-part application which discloses and claims subject matter in addition to that disclosed in the prior application (37 CFR 1.63(d)).
7. ☐ does not include the date of execution.
8. ☐ does not use permanent ink, or its equivalent in quality, as required under 37 CFR 1.52(a).
9. ☐ contains non-initialed alterations (See 37 CFR 1.52(c)).
10. ☐ Other:

B. Applicant is required to provide:

1. ☐ A statement signed by applicant giving his or her complete name. A full name must include at least one given name without abbreviation as required by 37 CFR 1.41(a).
2. ☐ Proof of authority of the legal representative under 37 CFR 1.44.
3. ☒ An abstract in compliance with 37 CFR 1.72(b).
4. ☐ A statement signed by applicant giving his or her complete post office address (37 CFR 1.33(a)).
5. ☐ A copy of the specification written, typed, or printed in permanent ink, or its equivalent in quality as required by 37 CFR 1.52(a).
6. ☐ Other: